

WHAT IS CLAIMED IS:

1. An isolated nucleic acid having the sequence defined by SEQUENCE ID NO: 1 or 3, or a fragment thereof capable of specifically hybridizing with a nucleic acid having the sequence defined by SEQUENCE ID NO: 1 or 3 under stringency conditions defined by a hybridization buffer comprising 30% formamide in 5 x SSPE (0.18 M NaCl, 0.01 M NaPO<sub>4</sub>, pH7.7, 0.001 M EDTA) buffer at a temperature of 42°C and remaining bound when subject to washing at 42°C with the 0.2 x SSPE.
2. An isolated nucleic acid according to claim 1 capable of specifically hybridizing with a nucleic acid having the sequence defined by SEQUENCE ID NO: 1 or 3 under stringency conditions defined by a hybridization buffer comprising 50% formamide in 5 x SSPE buffer at a temperature of 42°C and remaining bound when subject to washing at 42°C with 0.2 x SSPE buffer at 42°C.
3. An isolated nucleic acid according to claim 1 encoding a human cellular inhibitor of apoptosis protein (c-IAP) comprising at least two of: a first domain comprising SEQUENCE ID NO: 5 or 6, a second domain comprising SEQUENCE ID NO: 7 or 8, and a third domain comprising SEQUENCE ID NO: 9 or 10; said protein having a c-IAP specific activity.
4. A method of making a human cellular inhibitor of apoptosis protein (c-IAP) comprising introducing a nucleic acid according to claim 3 into a host cell, growing said host cell under conditions whereby said nucleic acid is expressed as a transcript and said transcript is expressed as a translation product comprising a cellular inhibitor of apoptosis protein, and isolating said translation product.
5. A method of identifying lead compounds for a pharmacological agent useful in the diagnosis or treatment of disease, said method comprising the steps of:  
incubating a mixture comprising:  
a human c-IAP made by a method according to claim 4,  
a natural intracellular human c-IAP binding target, wherein said binding target is capable of specifically binding said human c-IAP, and

- a candidate pharmacological agent;  
under conditions whereby, but for the presence of said candidate  
pharmacological agent, said human c-IAP specifically binds said binding target at a  
reference affinity;
- 5 detecting the binding affinity of said human c-IAP to said binding target to  
determine an agent-biased affinity,  
wherein a difference between the agent-biased affinity and the test affinity  
indicates that said candidate pharmacological agent is a lead compound for a  
pharmacological agent capable of modulating human c-IAP-dependent signal  
10 transduction.
6. A method according to claim 5, wherein said human c-IAP binding target  
comprises a TRAF or an intracellular fragment of a TRAF sufficient to provide for c-  
IAP-specific binding.
- 15 7. A method of modulating apoptosis regulation in a cell comprising introducing  
into said cell a nucleic acid according to claim 1 whereby said nucleic acid is  
expressed in said cell and the resultant gene product modulates apoptosis regulation in  
said cell.
- 20 8. A method of modulating apoptosis regulation in a cell comprising introducing  
into said cell a nucleic acid according to claim 3 whereby said nucleic acid is  
expressed in said cell and the resultant gene product modulates apoptosis regulation in  
said cell.
- 25 9. A method according to claim 8 wherein said cell expresses a recombinant  
protein in in vitro culture and said gene product inhibits apoptosis in said cell,  
whereby the yield of said recombinant protein is increased.

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